

Once the distribution is fairly well determined, the forest botanist (working with other resource professionals) develops interim prescriptions to reduce impacts to plant occurrences. As ecological information becomes available through conservation assessments, species and/or habitat management guides are prepared. These guides function as conservation strategies and are the basis for maintaining viable populations through time.

The goal of the Forest Service is to become a multicultural and diverse organization representing the American people we serve and responding to their diverse needs through the conservation of natural resources for today and for future generations.

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## OVERVIEW OF THE CALIFORNIA DEPARTMENT OF FISH AND GAME

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## MISSION AND ROLE OF THE CALIFORNIA DEPARTMENT OF FISH AND GAME

The mission of the Department of Fish and Game is to manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. As California's primary trustee agency for fish, wildlife, and plants, the Department actively seeks protection of these resources and their habitats. Because the Department does not have land use authority, it must work cooperatively with federal, state, and local governments, businesses, conservation organizations, and citizens to carry out its mission.

## GENERAL ORGANIZATIONAL STRUCTURE

The Department is part of the California Resources Agency. Headquarters is located in Sacramento and consists of the Directorate, divisions, and branches. Divisions and branches carry out specific program functions. Five regional offices carry out program responsibilities in specific geographic areas of the state.

The Director is appointed by the Governor, and is responsible to the Fish and Game Commission for conduct of the Department in accordance with Commission policies. The Fish and Game Commission is a governor appointed body responsible for adopting policies and regulations by which the Department operates. The Department has 1800 full-time employees. Sixteen of these are botanists.

#### SCOPE OF FISH AND GAME RESPONSIBILITIES FOR PLANT CONSERVATION

The legal framework and authority for the Department's work to conserve plants comes from the California Endangered Species Act (CESA), the Native Plant Protection Act (NPPA), the California Environmental Quality Act (CEQA), and the Natural Communities Conservation Planning Act (NCCPA). The Department works to conserve plants under these laws through listing, habitat acquisition and protection, review of local land use planning, multispecies conservation and recovery planning, research, and education.

The Department's four full-time staff of the Endangered Plant Program work to protect, manage, and recover the State's 215 rare, threatened, and endangered plants.

Four botanists within the Natural Diversity Data Base (NDDDB) track location and status information on 1751 rare plant taxa and 135 rare natural communities. This information comes from field survey forms sent to the Data Base by consultants, agency personnel, academics, and amateur botanists.

The Department administers 784,000 acres of land, and has designated 188 management areas (101 as Wildlife Areas and 87 as Ecological Reserves). A total of 9052 acres is managed specifically for native or rare plant populations and their habitats, primarily on 14 Ecological Reserves.

Because of funding and staffing constraints, the Department's knowledge regarding the presence and status of rare, threatened and endangered plants on its lands is very limited. Most Department lands have not been thoroughly inventoried, and only few priority plant populations are monitored regularly.

#### HIGHLIGHTS OF CURRENT CONSERVATION ACTIVITIES

Academic researchers throughout California work with the Department under Memoranda of Understanding, Research Permits, and contracts to answer questions that may be important to the conservation of listed plant populations. Some areas of current research include: recovery of *Amsinkia grandiflora*, the role of hybridization for the newly described *Ceanothus ophiophilus*, investigation of the differences in pollinator visitation and seed set be-

tween natural vernal pools and artificially created pools, exploration of evolutionary relationships for *Arctostaphylos* species, and host-pathogen interactions for *Erysimum menziesii*.

The Department co-sponsored a symposium on Monterey pine forest, habitat for at least ten endemic plant taxa including four State-listed species. The symposium was attended by city, county, and state agency personnel, consultants, and local citizens who are concerned about both the loss of forest habitat and the loss of genetic diversity in Monterey pine, an important economic species worldwide. The symposium represented a first step toward recognition of the value of the resource, the threats facing it, and the critical need for regional planning.

Multispecies planning efforts involving threatened and endangered plants are underway throughout California, including western El Dorado County, Sonoma County's Santa Rosa Plains, San Luis Obispo's Morro Bay region, Monterey Pine forest, the Southern San Joaquin Valley, the Owens Valley, and the western Mojave Desert.

The Endangered Plant Program is conducting interagency recovery workshops to identify management and recovery priorities for State-listed plants and to identify funding sources to carry out needed research and on-the-ground efforts. To date, recovery workshops have been held for *Acanthomintha ilicifolia*, *Allium munzii*, *Dodecahema leptoceras*, *Hemizonia conjugens*, and *Holocarpa macradenia*.

Since 1989, the Fish and Game Commission has added 28 plants to the State list of threatened or endangered plants. Only seven of these have been added since 1990. Increasingly, controversy has surrounded each listing petition. This has led to the need for staff to more thoroughly document and communicate information and actions associated with listing.

The Natural Diversity Data Base (NDDB) is converting to ARC/INFO, a commercially available software suite, that will make NDDB's information on California's sensitive plants, animals and natural communities more accessible to its users, which include state and federal agencies, consultants, local planning departments, and researchers. RareFind, the Department's pc-based software application compiled under FoxPro, is currently being improved to give users greater flexibility in searching the database and in creating reports.

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